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# Animals Serving the Handicapped

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## INTRODUCTION

Mankind for centuries has been hiding or ignoring the less than perfect examples of its own species. Society has recently recognized this problem by undertaking goals to mainstream into daily life those people with special needs. This is evident by the appropriation of tax monies and public funds for the building of hospitals designed with special living quarters for the handicapped, for the development of equipment and prosthetic devices intended to normalize the appearance and abilities of the handicapped, for legislation and changing of architectural regulations to provide increased accessibility for the disabled, for providing attendant care and jobs for the disabled, and for changing the general public's concept of the "norm" in regards to those with special needs. However in times of economic difficulties, advances in technological aids, accessibility, and general acceptance of the handicapped into society have been slow. Society is recently exploring ways in which animals can be specially trained to assist the handicapped in performing the daily tasks of an independent life style. Here we will review the overall benefits of animals in improving the well-being of the handicapped, the specialized training received by such animals, and legislative regulations pertaining to the legal rights of disabled individuals using these specially trained animals.

## BENEFITS OF THE HUMAN-ANIMAL BOND

The positive effects of pets are not only seen

in the socially isolated. Interaction with a pet results in a decrease in heart rate and blood pressure<sup>1</sup> akin to the deeply calming effects of prayer and meditation.<sup>2</sup> For example, a study done by Erika Friedmann showed that patients owning pets had a statistically higher one-year survival rate after discharge from a coronary care unit than non-pet owning patients.<sup>3</sup> Moreover, a survey of pet owning clients versus non-pet owning clients at a large Veteran's Administration Hospital, revealed that those owning pets had better physical and mental health and a higher subjective perception of morale regardless of objective indicators such as health impairments, income, and age.<sup>4</sup> Similarly, an English study revealed a higher level of self-esteem among guide dog owners than sightless non-owners even if the non-owners were quite mobile and independent.<sup>5</sup> Pet ownership functions to increase the owner's self-esteem and desire to communicate. Having pets improves owners morale, makes owners feel needed, makes them laugh, and decreases the feelings of insecurity and rejection of those with physical illnesses that often result in deep emotional depression.

Katcher and Friedmann (1980) have delineated seven major ways that companion animals may benefit their owners.<sup>6</sup> The first benefit noted is companionship. For the handicapped and home-bound, pets diminish the aspects of isolation and loneliness. The affection shown by pets is constant and does not distinguish between the able-bodied and the handicapped dependent upon crutches, canes, or wheelchairs for mobility. Pets provide a sense of intimacy by providing a living being to talk to and to touch. Touch is an important means of affection demonstrated between humans and animals. The act of touching has a

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powerful influence on the central nervous system by decreasing sympathetic arousal. Pets help to dissipate tension and stress thereby acting as a relaxing agent to decrease the possibility of hypertension, stroke, coronary heart disease, and diabetes which are associated with constant emotional arousal.<sup>7</sup> Pets also act as a "social lubricant" by facilitating interactions between their owners and other people.<sup>8</sup> Mugford noticed an increased number of friendly contacts between people when one or more of the participants was accompanied by a good looking dog.<sup>9,10</sup> People were most apt to stop and pet the dog owned by a wheelchair-bound person, thus striking up a conversation with that person, while they were apt to ignore that same person without a dog should the two meet on the street. Pets may also serve as a major source of discussion or as an emotional "clearing house" for family members interrelating with the emotionally or physically disabled family member.<sup>11,12</sup>

When people of any age feel useless, they tend to retreat from social contacts thereby aggravating their own isolation and loneliness. This is particularly true of the physically handicapped who have acquired the disability after a period of a normal and productive life. A feeling of uselessness often leads to depression and a loss of self-esteem which can increase the probability of disease and death. The responsibility of caring for a pet may provoke a psychoendocrine organization leading to greater resistance to disease within the handicapped person. Furthermore, caring for a pet can result in a willingness of the disabled person to explore the physical limitations of his handicap.

Pets provide something to keep one busy. This is especially important to the home-bound and physically disabled who have lost the ability to do meaningful work. Keeping busy has an important positive effect on longevity.<sup>13</sup> The presence of an animal making demands on an owner provides a stimulus for the person to remain active and to feel needed.

A fifth benefit is that pets, by their antics and demands, may serve in drawing attention away from the private, painful thoughts concerning the loneliness incurred from a physical or emotional disability. Pets, such as the service trained dogs and monkeys, may allow a certain degree of independence to the disabled person in allowing him to do things and

perform certain tasks through the assistance of an animal that he normally could not do as a disabled person.

Exercise is another important benefit. A dog can provide the motivator and stimulus for regular repetitive exercise whether it be walking the dog or playing ball with the dog.

Security is the last, most important psychological benefit. Fear of being hurt is often significant in the elderly and home-bound disabled who have a decreased ability to meet other people in their daily activities. Fear can also increase the frequency of depression, thereby making a person feel trapped and lonely. A pet can decrease the fear and increase the willingness of the physically disabled person to move about freely. This has certainly been evident for years if one has ever known a blind person who depends on his guide dog to guide him through traffic. Signal dogs also provide a sense of security to the hearing impaired by allowing them to move about their home freely while still remaining alert to various sounds through the ears of a dog.

## GUIDE DOGS

The use of specially trained dogs, mainly German shepherds, to lead the blind originated in Germany after World War I. At that time war-torn Germany had to deal with the many blind veterans when human help was unavailable. The Germans were particularly successful in training guide dogs and established a program in 1916 at Oldenburg to train German shepherds as guide dogs.<sup>5</sup> In 1923, Dorothy Harrison Eustis founded Fortunate Friends, a research, breeding, and training center in Switzerland. However it was not until 1929 when Morris Frank returned to the United States from Switzerland with the first trained guide dog that Mrs. Eustis was encouraged to establish the first guide dog center in the United States at Morristown, New Jersey.<sup>14</sup> Currently, there are 10 guide dog schools in the United States. Training programs also flourish in England, Australia, South Africa, Sweden, Holland, Italy, Norway, Denmark and other countries. While these schools train dogs for the task of guiding the blind, there are distinguishing differences among the breeding programs, testing, training techniques, application procedures and follow-up programs.

Most guide dog schools in the United States use American Kennel Club (AKC) registered dogs of the golden retriever, Labrador retriever, and German shepherd breeds. These three breeds have proved to be most reliable for this special work, because of their adaptability to hot or cold climates, ease in grooming, medium size, calm temperament, and willingness to work. Although a large percent of the dogs used are purebreds produced by the various foundations, an occasional donated or mixed breed dog may be accepted from the general public if it also meets the temperament and intelligence criteria of selection used by the various foundations in their own purebred kennels.<sup>15,16</sup> Careful breeding supplies dogs of predictable temperament with medium aggression, very high trainability and low reactivity for use as guide dogs. Aggressiveness relates to aspects of territorial defense, barking behavior, dominance over the owner, and aggression toward other dogs. Reactivity refers to the affection demand of the animal, excitability to external stimuli, barking and biting behavior, and general level of activity. Trainability is assessed by the ease in housebreaking the dog and in teaching the animal new tasks.

As is typical for all of the guide dog programs, 6 week old pups undergo a 5 week testing period to assess their reactions to sounds and obstacles, and their intelligence. The puppy testing techniques and criteria at Guide Dogs for the Blind were developed by Clarence Pfaffenberger who served as regional director at the Dog Training and Reception Center for Dogs for Defense and the Army in California during World War II.<sup>5</sup> His observations showed that the dogs best suited for military service work were those that had been raised in a socializing environment. It was apparent that experiences of the puppies passing through the critical development stages of life affected the animals later behavior in accordance with their genetic disposition.

At 11 weeks of age, successful puppies are farmed out to a 'puppy walker' family whose main responsibility is to familiarize the pup to a family atmosphere during the next 12 to 15 months. The puppy walker must provide a fenced exercise yard, good diet, and 24 hour companionship. During this time, the pup is house trained and taught to obey the usual 'sit,' 'down,' 'stay,' and 'come' commands. The

pup is not trained to 'heel' since such training would have to be corrected when formal adult guide dog training is begun. Instead the pup is encouraged to follow quietly on the leash at the left side of the walker. Voice control is emphasized since that is the only means by which a blind person can communicate with his dog. During this time the pup wears a green jacket identifying him as an official guide dog puppy as he accompanies his walkers to the grocery store, through traffic, and on public transportation.

At 15 months of age, the dog returns to the school to begin formal guide dog training after meeting all health requirements including hip examination and eye clearance. Each instructor individually works a string of 6 to 8 dogs so that he can assess each dog's personality and gear the training to develop the animal's full potential as a guide dog. The animal is obedience trained and taken for walks in quiet local villages. The dog is taught to stop at all curbs and to respond to "foreward," "left," "right," "about," and "halt" commands. Furthermore, the dog learns to concentrate on his responsibilities by ignoring stray dogs, cats, and other distractions. After this stage of training is accomplished, the harness is introduced and intense individual training commences. The dog is taught to accept the instructor's width and height in addition to its own and to allow clearance when negotiating obstacles, pedestrians, or other hazards. The guide dog is also taught to obey moving traffic. Most importantly the dog learns that while in harness it is required to work and be aware of its responsibilities. Only when the harness is removed is it time to relax. Each dog receives comprehensive training in rural and urban areas. Procedures for guiding the blind through revolving doors and turnstiles, into elevators, and up stairs must also be taught to the dog. After 3 to 6 months of formal training, each dog is tested by the instructor while wearing a blindfold so that he can be completely confident in the animal's ability to guide a blind person safely. This test is mandatory before a guide dog is assigned to a blind person for residential living. At the blind person's residence, a two day instruction time is first conducted with the instructor. Here the blind student begins to acquire a free stride and to maintain balance on sudden stops and turns. Above all, the student learns to trust the instructor which is the first step

toward later trusting a dog. Upon completion of this training the student is introduced to his dog. After their first greeting, the dog is gradually estranged from his instructor until a new bond is formed between the guide dog and his blind owner. At the end of the course an informal graduation ceremony is held to mark the new beginning of the working pair. This ceremony also allows the blind new owner to talk with the 'puppy walker' so that he may better understand his animal's background.

### SIGNAL DOGS

The first actual signal/hearing dog program began in 1975 under the direction of Agnes McGrath, director of the Minnesota Humane Society.<sup>17,18</sup> The success of a pilot study in which 6 dogs were trained to recognize sounds and thereby assist the deaf led to the Hearing Ear Program of the American Humane Association (A.H.A.) established in 1976. During 1976 to 1983, the A.H.A. developed its program to train rescue dogs to alert the deaf to critical sounds. The program continued to grow with the addition of a curriculum at Newbury Junior College in Holliston, Massachusetts for teaching vocational students to become professional signal dog trainers.<sup>2</sup>

Inspired by the Denver-based American Humane Association Hearing Dog Program, the San Francisco Society for the Prevention of Cruelty to Animals (S.P.C.A.) initiated its own Hearing Dog Program in 1978.<sup>17</sup> By applying this concept to an animal shelter program, the San Francisco S.P.C.A. developed a unique way to assist deaf individuals residing in California while at the same time giving previously homeless animals a chance for useful lives of service to mankind. Another organization, Canine Companions for Independence (C.C.I.) of California, expanded this concept by exploring the instinctive behavior of all breeds of dogs for this type of work.<sup>18,19</sup>

Hearing dog programs tend to utilize dogs of breeds known for high trainability and high reactivity such as terriers, poodles, or mixed breed small dogs of these breeds.<sup>19</sup> Canine Companions for Independence has identified three breeds for signal work: the schipperke, Pembroke Welsh corgi, and the border collie. This organization continues to assess other breeds for traits and abilities for signal work.

Cats have not been included in these programs because of their independent nature

rather than for a lack of intelligence required for sound recognition. It is felt that cats cannot be as consistently relied upon as dogs to respond to a recognized sound. However C.C.I. is experimenting with the Rex breed of cats which may prove suitable as social or signal animals.<sup>18</sup>

Each perspective signal dog must undergo a thorough evaluation designed to test the animal's curiosity, temperament, stability, and trainability. A complete health physical is also necessary. About 50% of the dogs evaluated by the San Francisco S.P.C.A. trainers have been accepted for training.<sup>17</sup>

Signal dogs are trained to respond to six sounds: two required sounds plus four sounds selected by the hearing impaired client. Required sounds which the dog must recognize and respond to are the sound of a door knock, since hotel rooms lack doorbells, and the sound of a smoke alarm.<sup>19</sup> These animals also learn the basics of obedience training. Some of the hearing dog programs require that the dog pick up anything dropped by the deaf client, such as keys, since by not hearing an item drop, the loss may go unnoticed.<sup>18</sup>

The primary method used for conditioning a dog to sound stimuli is *inductive*, using food and praise as reward for correct recognition of the various sounds being taught to the animal. Compulsive training is usually required in certain stages of learning with leash or light line-correction, especially in the presence of distractions. Each dog is conditioned to alert his master by responding in one of two ways.<sup>17,20</sup> The first involves a back and forth response where the dog seeks the source of the sound and then runs back to the owner a few times while trying to make body contact or eye contact with the person. For the smoke alarm or alarm clock, the dog responds by jumping on the bed of the sleeping person. If the person prefers to communicate in sign language, the dog is also trained in obedience commands by hand signals as well as by voice.

It takes an average of 3 to 4 months to train an animal as a signal dog before gradually transferring the animal to the hearing impaired client. Follow up visits by the trainer are required to assure proper care of the dog and that the new owner is utilizing the full potential of the animal. At the end of the probation period, the dog graduates with a special blaze orange collar and leash, and with a

certificate identifying the animal as a hearing ear dog.

### **SERVICE DOGS**

The newest use of dogs has been to train them to serve or assist people confined to wheelchairs. The same breeds as those trained as guide dogs are used, although an occasional collie, Doberman, or mixed breed dog may be included. Evaluative criteria for breed selection include: size, temperament, tractability, enthusiasm, willingness to work, and freedom from common faults as hip and elbow dysplasia, wet mouth, back problems, proneness to bloat, hereditary visual impairments, skin allergies, and other genetic problems which may interfere with the animal's performance.

The training of service dogs began between 1974 and 1977 when three independent programs were developed by Almo Reeves, founder of Handi-Dogs, Incorporated;<sup>21</sup> Bonita Bergin, founder of Canine Companions for Independence (C.C.I.);<sup>19</sup> and Sandy Maze, founder of Support Dogs for the Handicapped, Incorporated.<sup>22</sup> All three programs strive to train dogs to physically aid the handicapped, to provide emotional stability in the form of a loyal, caring friend to the disabled, to maintain independence for the physically impaired, and to provide a sense of security with freedom to go anywhere.

Basically all three programs measure puppy temperament at 8 weeks of age by various tests to assess innate dominance, submissiveness and independence with respect to people. The tests employed evaluate social attraction, response to restraint, and social and elevation dominance. Successful pups are raised by volunteers for one year in a manner similar to the guide dog puppy programs. During this time the pup will learn about 40 commands including housebreaking, "retrieving" objects, "getting dressed" in cape and collar for an outing, "going in" under a table or desk so as to be out of the way, "fix it" for solving leash problems without the owner's help, and "saying hello" in greeting.<sup>19</sup> The standard obedience commands of "sit," "down," and "stay" must also be learned.<sup>19</sup>

After one year, the pups are returned to the organization for individualized training to meet the needs of the physically handicapped client. The dogs are trained to retrieve dropped items, to carry a backpack of the

owner's belongings, to pull wheelchairs up steep ramps, and to provide physical support and balance for the owner when walking up or down stairs, getting off toilets or chairs, or off the floor if the person falls. These dogs are trained to open doors and hold them open while the physically disabled manipulate their wheelchairs through the doorway. These animals may also be taught to push elevator buttons that have been placed too high and to pick items selected by the owner off grocery shelves. A variety of tasks are learned by these animals with complete mastery of some 80 commands within 3 to 4 months of training.

The trained service dog is then introduced to the physically handicapped owner. To effectively link a client and service dog, some programs such as C.C.I. require the client and dog to participate in a "boot camp." The client must learn to control his own mind, will, and emotions for the benefit of the working team so that although separate, each functions in harmony to the strengths and needs of the other. Eventually success triumphs over the sweat, pain and frustration of continual drilling and command memorization. Confidence grows as the dog and master become a team through mutual respect and love.

### **SOCIAL DOGS**

Social dogs trained by C.C.I. work in various capacities in convalescent hospitals and nursing homes. Standard poodles are primarily used for this work because they have a nonallergic and non shedding coat, although Laboradors, golden retrievers, or smaller active breeds may be used. A social dog is trained to provide companionship and good cheer to love-hungry, depressed patients. Since patients must learn to speak clearly in order to communicate and play with dogs, the animals are included in speech and physical therapy programs. Having pets in a hospital atmosphere helps patients, including those who are retarded, autistic, or abused, to express affection when they cannot convey this feeling to other people. Social dogs provide the emotional and physical stimulation through games of ball or fetch that is necessary in raising an autistic or retarded child's intelligence and consciousness about the world in which he lives.<sup>19</sup>

The newest addition to C.C.I. involves the experimental C.C.I. Feline Program in which the Rex breed of cats are trained to act as

social cats in convalescent hospitals and rest homes.<sup>19</sup> This breed has a short, tufted haircoat that is nonallergic and non shedding, a loving nature, and an activity level capable of supplying hours of visual enjoyment for hospital patients, thereby making the breed a natural for this type of work. Initial placement of social felines by C.C.I. was made during late summer of 1984.<sup>19</sup>

### SERVICE MONKEYS

One can expect 10 to 12 years of use from a specially trained dog prior to retiring the animal due to age, failing eyesight, or slower reflexes which may endanger the life of the handicapped person. Most of these animals are eventually adopted as pets. However, Capuchin monkeys with their relatively long life span of 30 years may provide longer service to the physically disabled.

Capuchin monkeys are known for their manual dexterity and agility which is often lacking in the physically disabled. These traits combined with their innate intelligence, affection, loyalty, and size (18 inches tall and 5 to 8 pounds) made these animals perfect candidates for a 1977 research project conducted by Dr. Mary J. Willard at Tufts University, Massachusetts and funded by the National Science Foundation and the Paralyzed Veterans of America.<sup>23</sup>

Capuchin monkeys are usually acquired when they are 6 months old from zoological institutions. The animals are boarded with student volunteers who must spend a minimum of one hour a day familiarizing the animal to people by playing, talking, or taking frequent walks with the monkey. Each monkey then undergoes intensive training to associate a clicking sound made by the trainer with a food reward for good behavior. Eventually the food reward is withdrawn and only the clicking sound is needed to communicate which task the monkey must perform. These tasks are learned as the monkey imitates the trainer in a variety of actions, starting with simple tasks as ball handling and progressing to complicated feats such as placing objects in designated spots. At 3 to 5 years of age, these monkeys are fully trained and ready to be placed with disabled persons. In the home atmosphere, these busy little monkeys may help to feed the disabled person and may pick up objects while doing light housekeeping for the

disabled paraplegic or quadraplegic individual.

Dr. Willard is continuing her study with 11 monkeys at Albert Einstein College of Medicine in New York.

### LEGISLATION AND LIABILITY

Specially trained dogs are being used more than ever by the deaf, blind, and physically handicapped. However, many businesses serving the public do not recognize these special dogs as necessary to the agility, mobility, security, and comfort of their patrons. This is unfortunate since dogs of this caliber, with special purposes and wearing harnesses are usually exceptionally well-mannered. It is particularly discourteous and difficult for handicapped travelers when their independence is limited by public opinion.

Many countries and states have enacted legislation making it illegal to deny access to blind persons and their guide dogs. In the United States guide dogs are permitted entry into many public places in accordance with federal and state laws. This is not the case with the signal and service dogs because the general public is unaware of these special programs that now exist. Although signal dogs are required to wear the identifiable orange collars, in many instances the owners are not recognized as being handicapped simply because the hearing impaired is not a visible disability to the general public.<sup>2</sup> In 1979, C.C.I. contributed its knowledge and experience toward the passage of the California Statutes of 1980, sections 54.1 and 54.2, granting public access to signal dogs.<sup>19</sup> In 1980, C.C.I. worked with the California State Legislature to gain passage of a similar public access bill for service dogs.<sup>19</sup> So far service dogs have the same rights as guide dogs in California, North Dakota, Arizona, Alaska, New Jersey, Nevada, and Ohio.<sup>18</sup> Other states are making advances in updating legislation to meet the growing demands for legal rights assigned to service dogs.

All is not equal in the rulings of the Internal Revenue Service (I.R.S.). The blind and particularly deaf can deduct as medical expenses the costs of maintaining dogs as guide dogs or hearing dogs.<sup>24</sup> However, service dogs for the physically impaired are not included in this I.R.S. ruling.

Legislative action to permit animals in nursing homes and government subsidized

housing projects is being considered nationally as well as in several states. In 1983, President Ronald Reagan signed into law P.L. 98-181 entitled "Pet Ownership in Assisted Rental Housing for the Elderly or Handicapped."<sup>25</sup> This law prohibits an owner or manager of any federally assisted rental housing project for the elderly or handicapped from denying tenancy to any tenant or prospective tenant owning or living with common household pets. This law also provides for the Department of Housing and Urban Development (H.U.D.) and the United States Department of Agriculture (U.S.D.A.) to publish regulations under which the owners or managers of such projects may write reasonable rules for the keeping of pet animals by tenants.

## CONCLUSION

As veterinarians, we may be the major information source for the procurement of these animals by disabled individuals within the community. It is important that we understand the training, abilities and the dependency of handicapped clients upon the animals' services as we provide medical care to the animals.

The cost of training these animals varies from \$2000 for signal dogs to \$6000-\$9000 for service dogs and guide dogs.<sup>2</sup> However, in all instances healthy, neutered animals are placed with needy persons for a nominal fee usually under two hundred dollars. While the use of these animals is not acceptable to all handicapped individuals, the physical assistance provided by these specially trained animals brings added confidence to many disabled individuals, thereby encouraging them to move into new areas. This confidence enables them to take part in vocational training and jobs, thereby reducing their financial support from government sources. Having specially trained dogs allows the disabled population to make a significant contribution to life, to go to work, to live alone, to interact on a peer level with the able-bodied individuals, and to be a part of life.

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#### **HEARING-DOG SCHOOL:**

Hearing Dog Program  
The San Francisco SPCA  
2500 16th Street  
San Francisco, California 94103

#### **ASSISTANCE-DOGS SCHOOLS:**

Canine Companions for Independence  
P. O. Box 446  
Santa Rosa, California 95402  
(707) 528-0830

Feeling Heart Foundation  
RFD 2, Box 354  
Cambridge, Maryland 21613  
(301) 228-9407

Handi-Dogs, Inc.  
P. O. Box 12563  
Tucson, Arizona 85732  
(602) 326-3412

Support Dogs for the Handicapped  
5900 N. High Street  
Worthington, Ohio 43085  
(614) 436-5345

#### **GUIDE-DOG SCHOOLS:**

Guide Dogs for the Blind  
350 Los Ranchitos Road  
P. O. Box 1200  
San Rafael, California 94902  
(415) 479-4400

Guide Dog Foundation for the Blind, Inc.  
109-19 72nd Avenue  
Forest Hills, New York 11375  
(212) 263-4885

International Guiding Eyes  
13445 Glenoaks Boulevard  
Sylmar, California 91342  
(213) 362-5834

Pilot Dogs, Inc.  
625 W. Town Street  
Columbus, Ohio 43215  
(614) 221-6367

The Seeing Eye, Inc.  
P. O. Box 375  
Morristown, New Jersey 07960  
(201) 539-4425

